

NOVEMBER
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ELECTRICITY EXPERIMENTAL SCIENCE

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**COLD
"FIRE"**
?
SEE PAGE 632



HOWARD ROWE

"ODD PHOTOS"

A MOVIE PHOTO THAT "RAN."

We have often heard of the "run" of motion pictures, but the brilliant phantasy gracing the top center of this group of "Odd Photos" is a motion photo that "ran" on one hot summer day in the Pathé film studios. It originally represented a scene from the "Isle of Jewels," a photo play of note, but this plate of a "still" view was overcome with the heat and so distorted the faces and forms of Stuart Holmes and Frances Mann that they now look most grotesque. The effect was produced by accident, of course, the emulsion on the plate having become distorted, due to trying to force rapid drying by artificial heat, before the photographer caught it, "freezing" the graceful forms of the actors in the poses here portrayed.

This is liable to happen to those who indulge in an overdose of 275 Bock. This is what the editors would call an "Ideal" type of "Odd Photo." So all those interested in our "Odd Photo" contest take notice, that what we desire is novelty, snap and something different!

IS SHE TRIPLETS?

Triplets? No! Just one girl having her picture taken three times on the same plate. The black background turns the trick.

Contributed by A. J. VIKEN.

A REAL GHOST PHOTO?

The accompanying *ghost plate* was produced to convince a steadfast believer in spiritualism that photos of ghosts were not genuine, but only fakes, easily produced by making double exposure using a black background.

The lady in the picture by posing as both ghost and a living person in the same photo succeeded in convincing a lady friend that photos of ghosts are not always what they seem!

Contributed by A. J. VIKEN

TORPEDO TUBE IN FRONT OF MUSEUM.

This clever superimposed or double exposure photo shows two of Uncle Sam's blue-jackets mounting a full-size, honest-to-goodness torpedo tube, and right in front of the New York Museum of Art—the naughty boys. Old "Pop Knickerbocker" sure will be sore when he finds it out.

Contributed by F. E. ZIESSE.

PAUL BRAS IS "2" ELECTRICIANS, ALREADY YET.

Herewith is a photo for your "Odd Photo" contest. Although it has nothing to do directly with electricity, it is odd. This is a photo of an electrician, or rather two of him, in front of a switchboard. It is a double exposure, of course.

Contributed by PAUL BRAS.

A NOVEL "LIGHTNING" PHOTO.

I am sending you herewith a photo for your "Odd Photo" contest. It shows a great forked "ribbon" lightning discharge which was a very pretty sight. It seemed to start in the lower right-hand corner of the picture and streamed upward, splitting into three very brilliant and several less brilliant "ribbons."

Contributed by A. J. VIKEN.

STANDING ON THE "3RD RAIL."

The picture, as you will see, shows two boys standing on a "live" third rail, which proves that as long as a person stands on the rail with both feet at the same time they cannot be harmed unless they place one foot on the ground and the other on the rail, which causes a circuit, thus killing or severely shocking the person.

Contributed by EDWARD HINES.

THE "ELECTRIC TOP" AT NIGHT.

I herewith submit an "Odd Photo." I took this photo while out at Riverview in Chicago. It is a picture of "The Top" at night. It was a time exposure. It is the same "Top" that you described in one of your back numbers of the ELECTRICAL EXPERIMENTER.

Contributed by ROBT. H. FREEMAN.

Cheesit! Willie! The Electric Spanker

It's kind of rough on Willie to tip off his dad this way, but news is news and it's got to be printed.

Next time Willie smashes the neighbor's kid on the nose, or sticks a surreptitious finger in father's wallet, or chucks the cat in sister's bath, he's in for it. He can't go out and brag to the gang.

"Shucks," says Willie. "I don't care. The old man will take me to the woodshed and massage me with his palm, and then he'll get tired and let me go."

The "old man" will give Willie the walloping of his young life, but he won't have a streak of red on an overexerted palm when the woodshed dialogue is done. For dad will merely thumb a button on the wall, tie Willie in a chair or on the table, apply this new "Electric Spanker," and sit by smoking a pipe or playing solitaire while Willie's heels kick in the air and Willie's vocal cords contract and expand.

There was exhibited at the New York Electrical Show a mechanism that Willie will vote nefarious and his dad will proclaim a blessing. It is the Electrical Spanker!

A small motor, which retrieves with passionate vigor what it lacks in size, is the substitute for irate dad's biceps. It is connected by a four-inch

rod to a broad applicator that performs the painful function of liason between spanker and spankee. It is about the breadth and length of the parental palm, but packs a more violent wallop.

It has the advantage or disadvantage, ac-

cording to the point of view, of deadly accuracy. Dad's palm, when fatigued, some times misses a few spans. The applicator lands "smack!" every jolt. It is to be considered, too, that whereas at about the twenty-second onslaught father's hand be-

comes weary, the electrical device can continue delivering a regular, rhythmic and impressive chastisement so long as the "juice" holds out.

Indeed, by tying Willie to the chair or table, father can go out for a beer, or go to the office and saunter home, to find the applicator still applying.

Now, father's adamant determination to wallop Willie may undergo an emotional softening and regret, stimulated by Willie's tears and wails, and may cause him to quit spanking Willie with his palm. The machine, on the other hand, is relentless. Willie can howl until the moon melts and the device will keep on earning its keep until father shuts off the current or mother sneaks into the woodshed to help sonny out of his predicament.

There is only one advantage accruing to Willie. He can say with truth hereafter, "That's a lot of bunk," when dad pulls the old bromide that "this hurts me worse," and so forth.

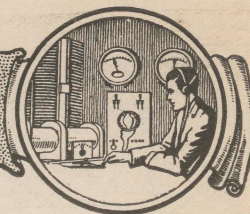


Photo Copyrighted by Underwood & Underwood.

An Electric Spanker, the Latest Contribution to Science. Yes, But Never Before Has a Scientific Development Met with as Much Disapproval Among the Younger Set. And Why Not? Jimmie's and Johnny's Naughtiness Will Now Be Answered by a Nice and Shiny Electric Spanker Replacing the Cat-o'-Nine-Tail. So Far the Only Danger in the Use of the Spanker Is That the Spankee Will Be Tickled to Death by It.



WITH ^{the} AMATEURS



Our Amateur Laboratory Contest is open to all readers, whether subscribers or not. The photos are judged for best arrangement and efficiency of the apparatus. To increase the interest of this department we make it a rule not to publish photos of apparatus unaccompanied by that of the owner. Dark photos preferred to light-toned ones. We pay \$5.00 each month for the best photo or photos and \$2.00 to each "Honorable Mention." Address the Editor, "With the Amateurs" Dept.

The Editors desire to call to the attention of all owners of "Electrical and Chemical Laboratories" the fact that hereafter the MONTHLY PRIZE WILL BE \$5.00 CASH, instead of \$3.00. ALSO \$2.00 CASH WILL BE PAID TO EACH "HONORABLE MENTION" ENTRY PUBLISHED. We have not received any "Laboratory Photographs" of late. So "go to it" and send us your photo, together with that of your laboratory. If they are particularly good we may list some new and bigger prizes. So get busy, Boys!!! It's up to you. Here's a way to earn some greatly wanted laboratory apparatus at no cost whatever. Don't be afraid to send in too many photos, Boys.

"Amateur Electrical Laboratory" Contest

THIS MONTH'S \$5.00 PRIZE WINNER—
KENNETH STRICKFADEN

THE photos herewith show my electrical laboratory at Coney Island, New York. It's good to be back again in the good old U. S. A. and my "experiments," after a sojourn in France with the A. E. F. My "layout" at present comprises a photographic dark room, chemical "Lab." and electrical "Lab." One of the photos shows the large Oudin high frequency coil, which is excited by an 18-inch induction coil, seen at the extreme right of the photo. I have a goodly collection of telephone, telegraph and radio apparatus—some home-made and some standard stock. The Oudin coil outfit is excited by the 18-inch spark coil operated by an electrolytic interrupter on 110-volt circuit. A rotary spark gap is used. My radio receiving set includes amplifiers. I have a Ford car, specially fixt up and decorated, in which "Yours Truly" and all the "junk" will attempt to fly across the continent to sunny California, my old home town—Santa Monica.—Kenneth Strickfaden (home address, 1217 11th Street, Santa Monica, Cal.).

HONORABLE MENTION—ELLWOOD R. RUTENBER
\$2.00 PRIZE PAID EACH "HONORABLE MENTION"

THE accompanying photos show my experimental electrical laboratory. I am sixteen years of age and have been experimenting for more than six years. My laboratory equipment includes the following:

15 V. 10 Amp. D.C. Generator; 6 V. 3 Amp. D.C. Generator; 110 V. 175 Amp. D.C. Motor; 1/20 H.P. A.C. Motors; 1/6 H. P., A. C. Motor; 6 cylinder Auto Magneto; 6 V. 40 Amp. Storage Battery; Combination Volt-Ammeter, 24 V. 50 Amp.; Electric Lens; Home-made Static Machine; Home-made Medical Coil; Switchboard; Ammeter, 30 Amp. Capacity; Rheostat; Test Buzzer 1 1/2, 6, 8, Volt Transformer.

I have spent many happy hours in this laboratory performing experiments of all kinds with the apparatus here described. I have a variety of chemicals and acids for experimental purposes, also three mixing trays and other paraphernalia necessary for the work. I also have a number of small motors, batteries, switches of various kinds, spark coils, bells, and how-to-make-it odds and ends. I have a very useful home-made low-voltage rheostat which I will describe for the benefit of other laboratory owners, at the earliest opportunity, in the columns of the ELECTRICAL EXPERIMENTER.—Ellwood R. Rutenber, 127 N. Washington Street, Marion, Ind.



"Cold Fire"

By H. Gernsback

Charging the Body with High Frequency Currents.

EVER since Nikola Tesla began experimenting with the high frequency currents which bear his illustrious name, the world has stood aghast at the many and wonderful effects made possible only by his discoveries.

Most of our readers are no doubt familiar with nearly all high frequency "stunts," emanating either from the stage or from the laboratory, and not much that is new can be written upon the subject.

But not so long ago the writer, while waiting for an electric train out on Long Island, amusedly watched two boys who took turns in jumping upon a live third rail, carrying 500 volts. They would jump upon the rail with both feet at once, and then balanced themselves upon the rail. There is, of course, no danger to this as long as both feet are on the rail. One foot on the rail with the other foot on the ground means certain death. The explanation, as most of our readers know, is that when you stand on the rail with both feet, there is no return circuit. The body in this case takes on a charge of 500 volts, which, however, is not felt at all by the experimenter, the same as you are not conscious that over 14 pounds of weight are pressing down upon your body on every square inch of you at all times, due to atmospheric pressure.

This made the writer wonder what would happen if you stood on one pole of a very powerful Tesla coil.

In a recent conversation with Dr. Nikola Tesla, the inventor pointed out that he had indeed performed many such experiments in his Colorado laboratory many years ago. The currents which he then used were far greater and higher than those produced anywhere now. Thousands of horsepower were used by him at that time. Dr. Tesla explained that he frequently stood upon one pole of his mastodontic coils while the full current was on. Of course, he had to stand upon a metallic plate, but he had to be careful so that no sparks jumped from his body to other objects or to the ceiling. This would

have meant instant electrocution. Dr. Tesla pointed out that as the human body has a certain capacity, it radiated a good deal of energy into the surrounding air. Due to the tremendous current the sensation was anything but comfortable. The current heating the blood vessels raised the bodily temperature, and the experiment for this reason alone could not be extended for any

fire." Dr. Tesla also explained that during the experiments his hair would rise on end, producing the same effect as if a large static machine had been used, with the well-known result, on the hair.

The other day we endeavored to repeat Dr. Tesla's experiments, and the illustrations shown here are the result. We called upon the Electrical Testing Laboratories of

New York, who have one of the most powerful high frequency machines in the country. Altho but a pigmy alongside of Dr. Tesla's Colorado thunderers, the machine gives 500,000 volts and uses 20 kilowatts. The transformer is sunk into oil, and when the full load is on throws streams six to seven feet long. The noise of the tremendous sparks can be heard for blocks.

We first took a rabbit and placed him upon the metal plate of the "high" terminal of the transformer. At first he was much frightened and jumped off the plate at about 5 kilowatts. Long sparks had shot out from his nose and above his eyes and at the end of the ears. So the writer wetted the platform with water, because he thought that sparks might be jumping into the rabbit's belly and legs which insulated the fur part of his body, giving rise to stinging sparks. An improvement was seen immediately. The rabbit now held perfectly still for about 20 seconds, taking the full charge of 20 kilowatts at 500,000 volts. Long spark streamers, four or five feet long, shot from brer' rabbit's nose, ears and back, and, curious to note, immediately above the eyes. Here

the sparks were so hot that they singed the hair. So the writer wetted the spots above the eyes, and after that the rabbit took the full charge, never moving once for twenty seconds at a time. See Fig. 2. Altho long streamers came principally from the nose, the photograph does not show it. After awhile the rabbit seemed to enjoy the performance, and right after his séance



Fig. 1. A dry bath with "cold fire." Altho millions of volts are used in the process, this form of bath is quite pleasant. The currents throw off all dead skin, scale and dirt clinging to the skin. Besides the treatment is distinctly invigorating, leaving the skin rosy and all a-tingling. Every home will soon be equipt with a huge Tesla coil.

great length of time. Dr. Tesla explained that during the experiment sparks and long spark-streams would envelop his entire body. At the extremities, elbows, knees, hip bones, nose, ears, etc., the spark display was most pronounced. Streams five to ten feet long would shoot out from the extremities with a crackling noise. Due to the exceedingly high frequencies used, however, the sparks did neither sting nor burn the flesh. Mr. Nikola Tesla's own words, his body, indeed, was enveloped in "cold